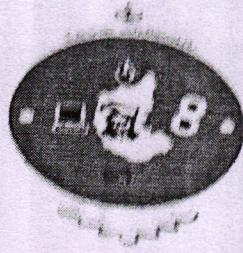


VISHVA VIKAS TECHNOLOGICAL UNIVERSITY "JNANA
RANGAMIA", BELAGAVI 590018.



2022-2023

A PROJECT REPORT ON
"SMART ENERGY METERING AND POWER THEFT CONTROL
USING ARDUINO AND GSM"

SUBMITTED IN PARTIAL FULFILLMENT FOR THE REQUIREMENT OF
THE AWARD OF DEGREE OF

BACHELOR OF ENGINEERING

IN

ELECTRICAL & ELECTRONICS ENGINEERING

Submitted By

ABHINAV C M (15V18EE001)

AJAY B P (15V19EE001)

RAKESH L N (15V20EE401)

UNDER THE GUIDANCE OF

Mrs. SHWETHA T.M M.Tech, MISTE

Asst. Professor, Dept. of

E&EE, SIET, Tumakuru

H.O.D

Mr. G.H. RAVIKUMAR M.Tech, MISTE

HOD Dept of E&EE

SIET, Tumakuru



SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Affiliated to VTU Belagavi, Approved by AICTE New Delhi) Sira Road,

TUMKUR - 572 106, Karnataka

2022-2023

PRINCIPAL
SIET, TUMKUR.

Scanned with ACE Scanner

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

TUMKUR-572106

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



SHRIDEVI
EDUCATION

CERTIFICATE

This is to certify that the technical seminar report entitled "SMART ENERGY METERING AND POWER THEFT CONTROL USING ARDUINO AND GSM" successfully carried out by ABHISHEK G M (ISV18EE001), AJAY B P (ISV19EE001), RAKESH L N (ISV20EE401) the bonafide students of SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY TUMKUR-572106, in partial fulfillment for the award of degree of Bachelor Of Engineering In Electrical And Electronics Engineering Of The Visvesvaraya Technology University, Belagavi-560014 during the year 2022-2023. All the corrections/suggestions indicated for the internal assessments have been incorporated in report. The technical seminar report has been approved as it satisfies the academic requirements in respect to the technical seminar work prescribed for the said degree.

Shwetha TM

Signature of the Guide

Mrs. SHWETHA T.M
Asst. Professor
Dept of EEE

G. H. Ravi

Signature of the HOD

Mr. G H RAVI KUMAR
H.O.D
Dept of EEE

Narendra Vishwanath

Signature of the Principal

Dr. NARENDRA VISHWANATH
Principal,
SIET

External Viva

Name of the
Examiners:

Syeda Anjunnisa
Chhabai

Signature with date

Neel 24/5/23
Chhabai 24/5/23

Narendra Vishwanath
PRINCIPAL
SIET, TUMKUR

ABSTRACT

Energy providers measuring energy consumption in residential and commercial buildings are essential for billing, control and monitoring of energy consumption. Conventional metrology methods used for energy measurement are inconvenient and lead to many kinds of inconsistency. These crimes include miss payment due to human error, electricity theft, loss of money due to corruption, etc. This study presents the design and construction of a microcontroller-based power meter using the Global Mobile Communications System (GSM) network. The system provides a solution to the inconsistencies of traditional energy systems by allowing energy providers to remotely monitor capacity, complete management of customer load, and respond to energy theft in case of energy theft. The system has been tested to take remote energy readings, provide full control over the customer's load, and remotely connect in case of energy theft. The system provides high performance and high precision in electronic monitoring and power management.

N. Srinivas Kumar
PRINCIPAL
SLET, TUMKUR.